

L Number	Hits	Search Text	DB	Time stamp
1	222398	(thincore coreless (thin adj core) thin) with (carrier substrate board pc pcb pb cb (printed adj board))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/30 10:44
2	241	(thincore coreless (thin adj core)) with (carrier substrate board pc pcb pb cb (printed adj board))	USPÄT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/30 10:45
3	20	((thincore coreless (thin adj core)) with (carrier substrate board pc pcb pb cb (printed adj board))) and (semiconductor flipchip (flip adj chip) ic (integrated adj circuit)) and (packaging package)	USPÄT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/30 10:57
4	17	((thincore coreless (thin adj core)) with (carrier substrate board pc pcb pb cb (printed adj board))) and (semiconductor flipchip (flip adj chip) ic (inte2 not 3grated adj circuit)) and (packaging package)	USPÄT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/30 10:57
5	221	((thincore coreless (thin adj core)) with (carrier substrate board pc pcb pb cb (printed adj board))) not ((thincore coreless (thin adj core)) with (carrier substrate board pc pcb pb cb (printed adj board))) and (semiconductor flipchip (flip adj chip) ic (integrated adj circuit)) and (packaging package))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/05/30 10:58

DERWENT-ACC-NO: 2003-311837

DERWENT-WEEK: 200330

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TITLE: Stiffener for core/coreless
substrate of FC-BGA carrier
package for cellular phone, includes
insulator between
electrical elements, and is mounted
on planar surface of
substrate

INVENTOR: SATHE, A V

PATENT-ASSIGNEE: SATHE A V[SATHI]

PRIORITY-DATA: 2001US-0893466 (June 29, 2001)

PATENT-FAMILY:

PUB-NO	PAGES	PUB-DATE	MAIN-IPC
US 20030000736 A1		January 2, 2003	N/A
011	H05K	001/03	

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
US20030000736A1	N/A	
2001US-0893466	June 29, 2001	

INT-CL (IPC): H05K001/03

ABSTRACTED-PUB-NO: US20030000736A

BASIC-ABSTRACT:

NOVELTY - The stiffener (990) which supports a substrate (610), consists of metal, glass, plastic-like material and ceramics. The stiffer mounted on the planar surface of the substrate, includes an insulator to electrically insulate

the electrical elements on the opposing areas of the substrate.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) thin core/coreless integrated circuit printed circuit board carrier package; and

(2) packaged integrated circuit.

USE - For supporting thin core or coreless substrate of integrated circuit printed circuit board (IC-PCB) carrier package e.g. flip chip pin grid array (FC-BGA) carrier package, flip chip ball grid array (FC-BGA) carrier package used in cellular phone, personal digital assistant (PDA), notebook computer etc.

ADVANTAGE - Prevents distortion during mounting or packaging of the chip, thereby preventing damage to the chip. The manufacturing time and cost are reduced.

DESCRIPTION OF DRAWING(S) - The figure shows a perspective, partially exploded view of the flip chip pin grid array system.

substrate 610

stiffener 990

CHOSEN-DRAWING: Dwg.9/17

TITLE-TERMS: STIFFEN CORE CORE SUBSTRATE FC CARRY PACKAGE
CELLULAR TELEPHONE
INSULATE ELECTRIC ELEMENT MOUNT PLANE SURFACE
SUBSTRATE

DERWENT-CLASS: U11

EPI-CODES: U11-D01A3; U11-E01C; U11-E02A3;

SECONDARY-ACC-NO:

Non-CPI Secondary Accession Numbers: N2003-248291